

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau(43) International Publication Date
4 March 2004 (04.03.2004)

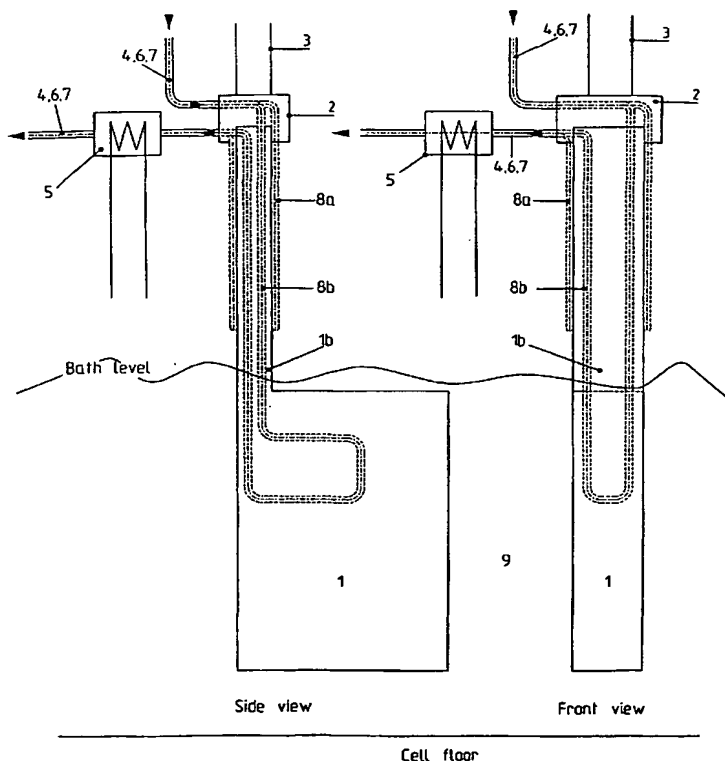
PCT

(10) International Publication Number
WO 2004/018737 A1

- (51) International Patent Classification⁷: **C25C 3/08**
- (21) International Application Number: **PCT/NO2003/000280**
- (22) International Filing Date: 15 August 2003 (15.08.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
20024047 23 August 2002 (23.08.2002) NO
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- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: CONTROL OF TEMPERATURE AND OPERATION OF INERT ELECTRODES DURING PRODUCTION OF ALUMINIUM METAL



(57) Abstract: The present invention relates to methods for operating and controlling the temperature of inert electrodes during production of molten aluminium by electrolysis of an aluminous ore, preferably alumina, dissolved in molten salts, preferably a fluoride based electrolyte, in an electrolysis cell with vertical or essentially vertical electrode configuration. The invention describes methods of designing and operating inert electrodes in a vertical and/or inclined position for production of aluminium metal, where said electrodes have an operating temperature that may deviate from the electrolyte temperature, thereby controlling the dissolution of electrode materials and preventing solid deposit formation on the electrodes. The present invention is also applicable to aluminium production cells utilising inert electrodes in a horizontal configuration, and traditional Hall-Heroult cells retrofitted with inert anodes.



Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/NO 03/00280

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: C25C 3/08

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: C25C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4737247 A (NOEL JARRETT ET AL), 12 April 1988 (12.04.88), column 1, line 52 - line 68; column 2, line 56 - column 3, line 31, figure 1, claims 7,8 --	1-38
A	US 4678548 A (MELVIN H. BROWN), 7 July 1987 (07.07.87), column 1, line 56 - column 2, line 3; column 2, line 67 - column 3, line 32, figure 1, claims 1,3,6 -- -----	1-38

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

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Date of the actual completion of the international search

17 November 2003

Date of mailing of the international search report

21-11-2003

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Swedish Patent Office

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INTERNATIONAL SEARCH REPORT

Information on patent family members

06/09/03

International application No.

PCT/NO 03/00280

Patent document cited in search report			Publication date	Patent family member(s)	Publication date
US	4737247	A	12/04/88	NONE	

US	4678548	A	07/07/87	NONE	
